

NEW SPECIES OF PENTATOMIDAE FROM NORTH AND SOUTH AMERICA (HETEROPTERA) I.

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Through various agencies the following pentatomids have become available for study. It is deemed advisable, at this time, to publish descriptions of these new species so that our knowledge of the various genera involved may be enhanced. In most cases, unfortunately, only two or three specimens of each species are as yet available but, from all indications, the differences between these and previously known relatives are sufficiently distinct to warrant erecting new names for them.

The various ratios given in the descriptions are dimensions measured through a binocular microscope, using a $\times 2$ objective and a $\times 9$ ocular fitted with a micrometer scale divided into one hundred linear units; they are not in terms of millimeters except as mentioned in connection with the holotypes and allotypes.

Tribe Discocephalini

Platycareus (Discocephalessa) tenebricornis n. sp.

Oval, very similar in size and shape to *P. clypeatus* (Stal) but over-all much darker due to the coarser and more numerous fuscous and ferruginous punctures, particularly on the venter and the legs. The following differences will readily separate the two species. Antennal segment I dull yellow with a few fuscous marks, the remaining segments uniformly fuscous to piceous, not fusco-lineate as in *clypeatus* or fusco-punctate as in *humilis* (Herrich-Schaeffer). Humeral angles roundly obtuse and not weakly emarginate as in *clypeatus*. The frenum ends at a point somewhat beyond the middle of the scutellum and not at the middle as in *clypeatus*. Abdominal venter with more and coarser punctures than in allied species with many of the punctures encroaching on the middle of the abdominal disc; this area is impunctate in *clypeatus*. Fuscous spotting on the legs, particularly on the tibiae, very conspicuous, with the spots on the latter tending to become confluent so as to form dark, broken bands along the margins of the tibial sulci.

From the posterior aspect the ectal margins of the male parameres are distinctly sinuate rather than vertically straight as in *clypeatus*;

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the dorsal tips of the parameres reach above the dorsal margin of the genital segment and diverge there so that the two parameres combined give the impression of being lyriform; in *clypeatus* the tips of the parameres barely reach the dorsal margin of the segment and the two taken together form a rectangular outline.

The other characteristics are as in *clypeatus*.

This could possibly be a subspecies of *clypeatus* and limited to the southwestern region of the United States but the differences in the male genitalia and the darkness of color and coarser puncturation suggest that this form is a distinct species. It is found feeding at the bases of the leaves of *Agave*. I have taken them from the axils of such leaves.

Described from 16 males and 15 females as follows:

Holotype: Male: 8 mm. long; 4.5 mm. wide across humeri. Madera Canyon, Santa Rita Mountains, Pima County, Arizona. August 13, 1952. C. and P. Vaurie, collectors. Deposited in the American Museum of Natural History.

Allotype: Female: 9.0 mm. long; 5 mm. wide across humeri. Same data as above.

Paratypes: Arizona, Pima County, Madera Canyon, Santa Rita Mountains: August 13, 1952, C. and P. Vaurie collectors (8 males, 5 females); July 14, 1952, G. M. Bradt collector (1 male, 1 female); July 1, 1932, E. D. Ball collector (5 males). Cochise County, Huachuca Mountains, Ramsey Canyon, July 5, 1941, H. Ruckes collector (1 male, 5 females); July 19, 1935, E. D. Ball collector (2 females); Huachuca Mountains, Petersen's Ranch, August 17, 1940, E. C. Van Dyke collector (1 female).

Two male and two female paratypes are being deposited in the California Academy of Sciences. The remainder are in the American Museum of Natural History.

I have used the name *tenebricornis* for this new species to emphasize the presense of uniformly fuscous to piceous antennae. Stal in his original description of his species *clypeatus* stated that in that form the antennae are more or less uniformly pale with fuscous lineations on the basal segments. Dallas in erecting the species *marginellus* called attention to the presence of an impunctate margin to the lateral border of the pronotum and the bases of the elytra. The species *tenebricornis* shows no evidence of such impunctate areas. It is thus distinct from the two but still closely related to both.

***Platycareus (Discocephalessa) pseudopolitus* n. sp.**

Superficially like *P. politus* (Signoret) in color and size but not

as glossy and with distinctly different puncturation. In *politus* the reddish, ferruginous and fuscous punctures are quite uniform in size and very equally spaced on both the dorsum and venter, whereas in *pseudopolitus* the similarly colored punctures are of varying sizes and are very irregularly disposed on the dorsum and venter.

Head less than two and a half times as wide through the eyes as long medianly (65×30), the margins before the eyes very weakly sinuate (in *politus* the head is more than two and a half times as wide as long, i. e. 80×30 , and the margins before the eyes not at all sinuate); the surface vaguely undulant with weak depressions at the bases of the juga adjacent to the eyes; punctures irregularly distributed, leaving slightly raised laevigated lines between them; a clearly defined impunctate area between each ocellus and the eye. Antennal segmental ratios 10/17/22/25/25, i. e. segment V not twice as long as segment II; segments I, II and III dull yellow, thickly conspersed with fuscous punctures, segments IV and V dark fuscous broadly annulated with dull yellow at their bases; in *politus* the antennal segments measure 10/10/17/22/27, i. e. segment V more than twice as long as segment II and the segments are more or less concolorous dark yellow with only a vague sprinkling of reddish punctures on segments I, II and III.

Pronotum about two and one-third as wide across the humeri as long medianly (112×48), slightly longer proportionately than in *politus* in which the ratios are 100×45 , or about two and one-fifth times as wide as long; the punctures irregularly scattered and reaching the anterior margin, which in *politus* is present as a yoke-shaped ivory colored, impunctate band; posterior median portion of the disc vaguely transverse rugose lateral to which area there is an oblique band of condensed fuscous punctures on each side; humeral area slightly tumid.

Scutellum in the same proportions as in *politus* but with the punctures irregularly distributed and reaching the apex, which is concolorous; in *politus* the apex is ivory colored, impunctate and preceded by a broad transverse fuscous band; a subbasal fuscous patch present on the disc but much smaller than in *politus*; basal angles piceous with some congested punctures; in *politus* the basal angles are concolorous with the disc and the punctures well separated. Elytra with punctures disposed in clusters on the corium, leaving a number of irregular laevigate areas there, less irregularly spaced on the clavus and embolium. Connexivum well exposed, finely and uniformly ferruginous punctate, the basal and apical angles of the segments broadly piceous, but the incisures not banded.

Venter dark yellow, almost orange in color, punctures red to fuscous; coarse fuscous ones arranged in two broad longitudinal, parallel bands on each side of the thorax and then extending onto the abdomen where the bands become somewhat confluent; some scattered red punctures on the thorax; between the bands and the abdominal margin the punctures are red and uniformly exceedingly fine; between the bands and the inner portion of the abdominal disc the punctures are red, of various sizes and irregularly distributed, leaving a vague median impunctate line; the abdominal segmental angles are conspicuously black.

The lateral edge of the basal plates of the female genital valves distinctly concave, terminating apically in a minute, laterally projecting, triangular denticle. The most striking feature of this new species is found in the impressed and deeply invaginated ventral surface of the last abdominal segment, producing a pair of conical, tunnel-like spaces above and to the sides of the genital valves.

Unfortunately no male is known at the present writing. Described from three female specimens.

Holotype: Female: 9.0 mm. long; 5.75 mm. across humeri. Horqueta, Paraguay, December 29, 1938. Deposited in the American Museum of Natural History.

Paratypes: Two females. Same data as above.

Tribe Halyini

***Brochymena laevigata* n. sp.**

Form oval but not as broadly so as in *Brochymena carolinensis* (Westwood); color dark cinerous and glossy due to the laevigate areas on most of the body; dorsal surface definitely depressed.

Head about as long as wide through the eyes (68×65), the lateral margins gradually converging to a subacute apex; juga only very slightly longer than the tylus with a minute apical sinus present; subapical teeth blunt, not at all produced and leaving no sinus between their bases and the margins of the head; entire margin before the eyes laevigate ivory; a medium laevigate line extending from the apex of the tylus across the pronotum and reaching the apical third of the scutellum. Antennae dark fuscous to piceous with only the joints between segments II and III pale; segmental ratios: 18/30/40/40/40, i.e. segment III only one-third longer than segment II (in *carolinensis* the ratios are 18/30/50/45/40, i. e. segment III at least half again as long as segment II).

Pronotum about two and a third times as wide across the humeri as long medianly (165×70), irregularly punctured and pitted; sur-

face strongly undulant with the unpunctured areas ivory laevigate, especially behind the cicatrices and adjacent to the basal angles of the scutellum; humeri prominent with the dorsal surface of each in the form of a high crest; a deep antehumeral sinus present as in *carolinensis* but the anterolateral margins more strongly arcuate than in that species, impunctate, smooth and contrastingly ivory colored; the marginal denticles in the form of flat triangular serrations rather than terete pegs.

Scutellum one-third longer than wide across the base (120×90), irregularly and somewhat sparsely pitted and punctured, much of the surface laevigate ivory; basal angles deeply excavated obliquely, a cluster of large pits just mesad of each angle and a few scattered pits across the base transversely; middle of disc impressed each side of a broad obtuse longitudinal ridge; most of the punctures localized centrally. Hemelytra finely, densely and very evenly punctured, much in contrast with the coarsely and irregularly eroded scutellum; the hemelytra not impressed into the abdominal dorsum as in *carolinensis*. Connexivum widely exposed and alternated reddish fuscous and sordid yellow; the entire abdominal margins above and below smooth and ivory colored.

Abdominal venter dark yellow or brown, finely and densely punctured with fuscous and piceous laterally and irregularly and more sparsely punctured lighter medianly; the lateral piceous lunate markings on each segment, common in many species, here are lacking, the abdominal margins narrowly laevigate ivory. Legs dark fuscous, almost piceous with a contrasting, broad, ivory annulus, containing an elongated central maculation, on each tibia and an incomplete subapical annulus on each femur.

Male genital segment much like that in *carolinensis* but with the lateral angles less widely spread and not as produced but with the submarginal impressed area more pronounced; head of the paramere (clasper) shorter, the exposed flat surface broadly oval rather than elliptical as in *carolinensis*. Female genital similar in both species.

Described from two specimens as follows:

Holotype: Male: 15 mm. long; 8 mm. wide through the humeri. Reelfoot Lake, Tennessee. October 15, 1952. Deposited in the American Museum of Natural History.

Allotype: Female: 17 mm. long; 9 mm. wide across the humeri. Reelfoot Lake, Tennessee. October 15, 1952. Deposited in the American Museum of Natural History.

Very patently related to the *carolinensis* complex of the genus *Brochymena* but slightly smaller in size than its near relatives. The

principal distinctive characteristics are found in the extensive distribution of laevigate areas on the body, the strikingly ivory colored, arcuate, anterolateral margin of the pronotum and the contrast in puncturation between the hemelytra and scutellum. While there is considerable similarity in the form of the male genitalia, there is sufficient difference in proportions of the parts to permit ready separation of this species from others.

***Brochymena splendida* n. sp.**

Broadly oval; a large form almost the size of *B. myops* Stal and apparently related to that species; colors in striking contrast, black, fuscous, orange, ivory and occasionally red. Body above not as depressed and faceted as in *carolinensis* but more so than in *myops*.

Head about as long medianly as wide through the eyes (72×75), its anterior margins reddish or orange brown; subapical teeth inconspicuous, their sinuses obtuse, almost obsolescent; apex short and broadly triangular and subtruncate at the tip; juga slightly longer than the tylus, leaving a small rectangular sinus apically; apical fourth of the tylus orange brown or reddish; punctures on disc coarse, somewhat coalescent, leaving numerous irregular, reddish or orange brown laevigate areas between the punctures.

Pronotum slightly more than twice as wide through the humeri as long medianly (190×90); humeri not at all prominent; anterolateral margins essentially straight (strongly arcuate in *myops*) and reaching the humeri without a deep antehumeral sinus being formed; margins calloused orange brown or red (one specimen is carmine) with five or six short triangular teeth; crests of humeri not at all prominent and tinged reddish or sordid orange; disc coarsely and sparsely punctured and pitted with many irregular orange, reddish and ivory laevigate areas showing.

Scutellum only one-fifth longer than wide at the base (140×115); basal angles without a large calloused ivory spot as in *myops* but coarsely pitted and with a band of piceous punctures and pits extending obliquely across the base near the angles. Elytra with numerous smooth, irregular, stellate, dull ivory or light orange points between the fuscous punctures, with some concentration of the laevigate areas at the bases. Connexivum rather widely exposed, the segmental incisures broadly banded with black on each side, the areas between the bands reddish or orange and nearly impunctate.

Abdominal venter dull yellow or orange with ferruginous punctures concentrated laterally, no sharply defined fuscous lunate bands near the margins of the segments as in many other species, only the

basal and apical angles piceous; spiracles bordered with a piceous ring which is confluent with a piceous or fuscous spot anteriorly and narrowly separated from a piceous or fuscous spot posteriorly; metapleural plate adjacent to the evaporating area coarsely and sparsely punctured black; propleuron with a submarginal band of black just beneath the pronotal denticles; mesosternum with a pair of large black spots between the pro- and mesocoxae.

Femora sordid yellow heavily conspersed with black, a subapical, incomplete pale annulus present, the distal ends of the femora bright red or orange; tibiae with three equally large color bands, the basal one black, the intermediate one immaculate ivory (i.e. without a black spot at its center, thus much like that found in *myops*) and the fuscous distal one becoming red or orange apically. Rostrum fuscous for the most part (only the apex of segment I and the base of II being paler) and reaching the base of the fourth abdominal segment. Antennal ratios: 18/30/35/43/45, i.e. segment II slightly shorter than segment III, segments IV and V longest and subequal; basal segment red or orange, the remaining ones uniformly piceous.

Inner apical angles of the female genital plates broadly piceous or fuscous.

Described from three female specimens as follows:

Holotype: Female: 19.0 mm. long; 9.5 mm. wide across humeri. Seven miles south of Tumbiscatio, Michoacan, Mexico. December 1, 1950. Collector Ray F. Smith. Deposited in the American Museum of Natural History.

Paratypes: Female: One with the same data as above.

Female: One, Mexico, Morelos, 10 miles east of Cuernavaca. December 9, 1948. Collector E. D. Ross. Deposited in the California Academy of Sciences, San Francisco, California.

As already mentioned, there is apparently close relationship between this species from Mexico and the more northern and eastern *myops* and *carolinensis*. There is considerable difference in the shape of the head, however, and the color pattern is much more striking. The absence of a black maculation on the broad pale annulus of the tibia is a condition found only in *myops* and *splendida*, but the very straight anterolateral margin of the pronotum and absence of an ante-humeral sinus, present in both *myops* and *carolinensis*, immediately sets this species off from the others.

Brochymena chelonoides n. sp.

Closely related to *Brochymena parva* Ruckes but larger, more ro-

bust, more convex dorsally, of a lighter hue and more glossy. Overall color ranging from light brown to cinerous brown, being made of a sordid yellow background and punctured with fuscous, and in freshly captured specimens provided with a whitish bloom in the fuscous punctures; in *parva* the darker color is due to a greater congestion of somewhat larger, more numerous fuscous to piceous punctures on a brown background.

Head as wide through the eyes as long medianly (60×60), the laevigate yellowish longitudinal lines usually not as distinct as in *parva*; subapical teeth rectangular to obtuse and their associated sinuses likewise rectangular to obtuse rather than both being acute as in *parva*; juga usually slightly longer than the tylus, forming a minute rectangular sinus apically; antennae fuscous to piceous, the segmental ratios being 12/25/35/35/30, i.e. segment II distinctly shorter than segment III; in *parva* the ratios are 12/25/30/-30/25, i.e. segment II only slightly shorter than segment III and all segments thinner than in the new species.

Pronotum quite convex in both lateral and longitudinal diameters, about two and one-third times as wide across the humeri as long medianly (150×65); anterolateral margins with more and slightly larger acicular teeth than in *parva* and the discal areas above and below the margin less tumid than in that species; humerus acutely angled and provided with a few serrations on the anterior border as in most species of the genus; a moderate ante-humeral sinus present; punctures and pits on the pronotal disc more shallow, not as large or as numerous or as in *parva* and with more laevigate interpunctural areas visible.

Scutellum about one-fifth longer than wide across the base (115×95), punctures rather uniform in size and evenly distributed except those at the apical third which are smaller and more wide-spaced; larger pits confined almost exclusively to the basal area; some coalescing punctures frequently forming a darker transverse broad band across the shield adjacent to the area where the frenum ends. Hemelytra more finely and densely punctate with some small laevigate points irregularly scattered, one larger laevigate spot toward the base of the corium and embolium. Verruculate markings on the membrane as conspicuous as in *parva*.

Connexivum well exposed and for the most part sloping downward to continue the even transverse convex curvature of the dorsal surface; strikingly alternated, the incisures being broadly banded on each side with fuscous; the apical segmental angles rectilinear rather than subacute as in *parva* and not as distinctly produced as there, especially on the first three segments.

Venter sordid orange-brown, darkening laterally; the abdominal segments provided with submarginal lunate fuscous to piceous bands similar to those found in many allied species; legs annulated, each tibial pale annulus provided with a central dark spot; rostrum reaching at least the apical margin of the second abdominal segment, usually farther.

Male genital segment more widely spread than in *parva* and the apical angles more produced and more acute; parameres proportionately larger and the dorsal tips of them distinctly acute. Female genital plates similar to those found in allied species.

Described from thirty-eight specimens as follows:

Holotype: Male: 13.5 mm. long; 7.0 mm. wide across the humeri. Del Rio, Texas. July 9, 1931. William T. Davis, collector. Deposited in the American Museum of Natural History.

Allotype: Female: 15.5 mm. long; 8.0 mm. wide across the humeri. San Antonio, Texas. July 10, 1931. William T. Davis, collector. Deposited in the American Museum of Natural History.

Paratypes: Twenty-seven females and nine males as follows: Texas: Brownsville, July 23-August 1, 1906 (2 males, 7 females); Laredo, July 11, 1930 (1 male, 1 female); Marathon, June 10, 1930 (1 male, 2 females); Kingsville, no date (2 males, 8 females in the Cornell University collection); College Station, December 1, 1936 (2 males); Castolon, May 29, 1928 (1 female); Carrizo Springs, June 23, 1928 (1 female); Port Isabel, July 22, 1906 (1 female); Edinburgh, April, 1939 (3 females in the University of Michigan collection). Mexico: Coahuila, Musquiz, June 30, 1938 (1 male, 3 females).

Unless otherwise specified, the above paratypes are deposited in the American Museum of Natural History.

The convexity of this species has suggested the name *chelonoides* referring to the turtle-like form of the dorsal aspect. As already stated, there is much in common between this species and *B. parva*. However, the less tumidity of the pronotum above and below the anterolateral margins, the larger size, more robust antennae, lighter color in general, the more convex form of the body, the less numerous punctures and pits on all dorsal portions of the thorax and scutellum, the more widely spread apical diameter of the male genital segment and the more acutely tipped parameres, as well as the slightly larger and more numerous anterolateral marginal denticles, set this species off from its close relatives. From the present record this species seems to be confined to the central and southwestern area of Texas and northeastern region of Mexico.